

L 32247-65 EWP(e)/EWT(m)/EWP(w)/EWA(d)/T/EWP(t)/EWP(k)/EWP(s) EFW HJF(c)

ACCESSION NR: AR5004788

S/0137/64/000/010/1080/1080

SOURCE: Ref. zh. Metallurgiya, Abs. 101573

AUTHOR: Yudkovskiy, S. I.; Eykumans, E. F.; Guseva, A. N.; Funko,  
V. F.; Romanov, K. F.; Smirnov, F. F.

TITLE: Cutting and physicomachanical properties of alloys with a titanium boride base

CITED SOURCE: Sb. tr. Vses. n.-i. in-t tverdykh splavov, no. 5, 1964, 130-141

TOPIC TAGS: titanium base alloy, boron containing alloy, iron containing alloy, titanium diboride alloy, metal mechanical property, metal physical property, cutting tool

TRANSLATION: Results of an investigation of the cutting and physicomachanical properties of alloys based on titanium diboride are described. The alloys are outstanding for a high degree of hardness, ability to retain strength at high temperatures, a small friction coefficient, a high temperature for the start of adhesion to

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material, and a high resistance to scaling. The best cutting properties are exhibited by alloys with iron as a binder (alloys of  $TiB_2+15\%Fe$ ). Alloys based on titanium diboride can be used as materials for tools, including tools for machining heat resistant alloys. 11 literature titles. L. Romancheva. 2

SUB CODE: MM

ENCL: 00

Card 2/2

LAVROVA, A.P., kand. tekhn. nauk; GNOYEVOY, P.S., inzh.; KALENOVA, M.S.,  
starshiy nauchnyy sotrudnik; GUSEVA, A.N., mladshiy nauchnyy  
sotrudnik; MOROZOVA, L.I., mladshiy nauchnyy sotrudnik;  
KHARITONOV, V.A., inzh.; KANAREVSKIY, A.A., inzh.; MAZYAKIN, A.V.,  
inzh.; LISHFAY, V.M., inzh.; IL'YASHENKO, M.A., kand. veter. nauk;  
RYNDINA, V.P., inzh.; LOGINOVA, M.M., mladshiy nauchnyy sotrudnik;  
CHUDINA, S.A., mladshiy nauchnyy sotrudnik; TRUDOLYUBOVA, G.B.,  
starshiy nauchnyy sotrudnik; KARGAL'TSEV, I.I., assistant;  
MIKHAYLOVA, A.Ye., mladshiy nauchnyy sotrudnik; KARPOVA, V.I.,  
mladshiy nauchnyy sotrudnik; MERKULOVA, V.K., mladshiy nauchnyy  
sotrudnik; POLETAYEV, T.N., mladshiy nauchnyy sotrudnik

Study of the heat treatment conditions of smoked and cooked  
sausage. Trudy VNIIMP no.16:24--63 '64. (MIRA 18:11)

1. Kafedra tekhnologii Moskovskogo tekhnologicheskogo instituta  
myasnoy i molochnoy promyshlennosti (for Kargal'tsev).

GUSEVA, A.P.

Use of Transbaikalian plants in Tibetan medicine. Trudy Len.  
khim.-farm. inst. 12:363-366 '61. (MIRA 15:3)

1. Kafedra farmakognozii i botaniki Leningradskogo khimiko-  
farmatsevticheskogo instituta.

(TRANSBAIKALIA--BOTANY, MEDICAL)  
(MEDICINE, TIBETAN)

TSYBIKOVA, D.TS., kand. khim. nauk; GEMBITSKIY, P.A., kand. khim. nauk;  
GUSEVA, A.P.

Hammet equation and its application in organic chemistry. Trudy  
VSTI no.1:39-65 '62. (MIRA 17:11)

SKATKIN, Petr Nikolayevich; KOZHIN, N.I., prof., otv. red.; NIKITINSKAYA, I.V., red. izd-va; GUSEVA, A.P., tekhn. red.; GUS'KOVA, O.M., tekhn. red.

[Biological foundations of artificial fish culture; a historical outline] Biologicheskie osnovy iskusstvennogo ryborazvedeniia; istoricheskii ocherk. Moskva, Izd-vo Akad. nauk SSSR, 1962. 243 p.  
(MIRA 15:12)

(Fish culture)

1ST AND 2ND ORDERS																																																																													
PROCESSES AND PROPERTIES INDEX																																																																													
<p>BC</p> <p>Benzylidenacetone cinnamic acid and styrene bromide. PP Schorigin VI Issagulyantz and</p> <p>A. R. GUMEN (J. Gen. Chem. Russ., 1931, 1, 505-510).—A commercial method for the prep. of benzylidenacetone by the condensation of PhCHO with COHMe<sub>2</sub> is described. Technical-scale methods are given for the determination of benzylidenacetone, for the prep. of cinnamic acid from it by the action of NaOCl (yielding CHCl<sub>3</sub> as a by-product), for the prep. of styrene bromide from cinnamic acid, and of Me cinnamate.</p> <p>E. B. Uvânov.</p>																																																																													
ASB-5LA METALLURGICAL LITERATURE CLASSIFICATION																																																																													
<table border="1"> <tr> <td colspan="13">1ST AND 2ND ORDERS</td> <td colspan="13">1ST AND 2ND ORDERS</td> </tr> <tr> <td colspan="13">1ST AND 2ND ORDERS</td> <td colspan="13">1ST AND 2ND ORDERS</td> </tr> </table>																										1ST AND 2ND ORDERS													1ST AND 2ND ORDERS													1ST AND 2ND ORDERS													1ST AND 2ND ORDERS												
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**Application of the Diels and Alder method in the synthesis of new odoriferous substances.** P. P. Shorygin and A. K. Kiseleva. *Izv. Akad. Nauk SSSR Khim. Biol. Sci.* 1960, 77 (1960). The Diels and Alder reaction of dienes with conjugated double bonds with unsatd. aldehydes, ketones and acids was used in the prepn. of new aromatics. Crotonaldehyde (I) was condensed with 1,3- (II), 2,3- (III) and 1,4-dimethylbutadiene (IV), forming corresponding trimethyltetrahydrobenzaldehydes. The aldehydes condensed with MeCO (MeCOEt) gave isomers (and a homolog) of ionone, some of which (viola and methylviola) possess perfume odors. II (60 g.) with 90 g. I autoclaved at 155-160° for 12-14 hrs. gave 50% 2,4,6-trimethyl-3,4-tetrahydrobenzaldehyde (V), b.p. 51°, d<sub>4</sub><sup>20</sup> 0.833, n<sub>D</sub><sup>20</sup> 1.4716, semicarbazone, m. 182-3°. A mixt. of 65 g. V, 100 g. MeCO and 50 cc. alc. was treated dropwise (1 hr.) with 0.5 cc. of 20% NaOH. The reaction mixt. was neutralized with dd. H<sub>2</sub>SO<sub>4</sub> and then distd. to expel the unaltered V, MeCO and alc. Washing the residue with Na<sub>2</sub>CO<sub>3</sub> extg. it with Et<sub>2</sub>O, drying the soln. with CaCl<sub>2</sub>, expelling the Et<sub>2</sub>O and redistg. resulted in 30 g. *pseudionone* (Diels and Alder), b.p. 90-100°, d<sub>4</sub><sup>20</sup> 0.82, n<sub>D</sub><sup>20</sup> 1.461, bromophenyl- and hydrazone, m. 172-4°. III (8 g.) with 12 g. I in a sealed tube at 135-140° for 5 hrs. gave 7 g. 3,4,6-trimethyl-3,4-tetrahydrobenzaldehyde, b.p. 78°, d<sub>4</sub><sup>20</sup> 0.830, n<sub>D</sub><sup>20</sup> 1.4701, semicarbazone, m. 190-1°. Ten g. of the aldehyde in 15 cc. MeCO treated dropwise with 10% NaOH to phenolphthalein as indicator and then neutralized with H<sub>2</sub>SO<sub>4</sub>, dried and redistd. in vacuo gave nearly odorless Me

semicarbazone, m. 170-80°, and a product of aldol condensation with MeCO, b.p. 18-19°. The condensation of IV was of special interest, because it is present in considerable amts. in the hexadiene fraction of the waste hydrocarbons of synthetic rubber production by the Lebedev process. The redistd. hexadiene fraction by 70% IV and I (ratio of 4:1) was autoclaved at 175-80° for 7 hrs., giving 45% 2,5,6-trimethyl-3,4-tetrahydrobenzaldehyde (VI) (based on I). VI purified with NaHSO<sub>3</sub>, b.p. 68-9°, d<sub>4</sub><sup>20</sup> 0.842, n<sub>D</sub><sup>20</sup> 1.4725, semicarbazone, m. 167-5-6°. Condensation of 30 g. VI with 10 g. MeCO and 0.1 g. NaOH in 1 cc. alc., with and without addn. of 0.05 cc. alc.

resulted in 10% MeCH:CHMe:CH:CH:CHMe:CH:CH:CHMe:CH:CH:CHAc (mash), b.p. 110-11°, d<sub>4</sub><sup>20</sup> 0.817, n<sub>D</sub><sup>20</sup> 1.407, M. R. 00.2 (colcd. 50-1). It has a pleasant mix odor. The structure of viola was detd. by the Ruzicka and Siedel method (C. A. 26, 40539). It was treated with HI and P, and the resulting hydrocarbon, b.p. 113-15°, was dehydrogenated with Se, forming 1,3,6-C<sub>10</sub>H<sub>16</sub>Me<sub>3</sub> (picrate, m. 133°, Ruzicka and Rhmann, C. A. 26, 4502). Treating 35 g. VI with 70 g. MeCOR and 0.25 g. Na in 9 cc. of alc. for 3 hrs. resulted in 10 g. *methylviola* of the probable

structure MeCH:CHMe:CH:CH:CHMe:CH:CH:CHMe:CH:CH:CHAc, b.p. 113-15°, d<sub>4</sub><sup>20</sup> 0.832, n<sub>D</sub><sup>20</sup> 1.404. It has a violet odor. The work is being continued. Chas. Blanc



CROSS ELEMENTS		PROCESSES AND PROPERTIES INDEX		CROSS ELEMENTS													
CA		<p>Catalytic production of phenylacetaldehyde from <i>p</i>-phenylethyl alcohol. A. M. Gaseva. <i>Sintezy Dushistykh Veshchestv, Sbornik Statei</i> 1939, (4-5); <i>Khim. Referat. Zhur.</i> 1940, No. 4, 112.--A method was developed for producing <math>\text{PhCH}_2\text{CHO}</math> by catalytic oxidation of phenethyl alc. with Ag as the catalyst. The alc. vapors are mixed with air and passed over the catalyst heated to 350-400°. The optimum velocity of the alc. is 200 g./hr. and that of the air is 2.2 l./min. (130% of the theoretical). The temp. on the catalyst is 550-70° and in the evaporator 350°. A vacuum of 400-600 mm. is used. The product does not have to be purified and is fractionated <i>in vacuo</i>. The final <math>\text{PhCH}_2\text{CHO}</math> suitable for <i>perfumery purposes</i> contains approx. 10% of phenethyl alc. The product (yield 50%) has <math>n_D^{20}</math> 1.5305. Repeated expts. proved the suitability of the described method. W. R. Henn</p>		10													
MATERIALS INDEX		ASTM - S.A. METALLURGICAL LITERATURE CLASSIFICATION		CROSS ELEMENTS													
OPEN		<table border="1"> <thead> <tr> <th>STANDARD</th> <th>SYMBOL</th> <th>DESCRIPTION</th> <th>STANDARD</th> <th>SYMBOL</th> <th>DESCRIPTION</th> </tr> </thead> <tbody> <tr> <td>10</td> <td>10</td> <td>10</td> <td>10</td> <td>10</td> <td>10</td> </tr> </tbody> </table>		STANDARD	SYMBOL	DESCRIPTION	STANDARD	SYMBOL	DESCRIPTION	10	10	10	10	10	10	CROSS ELEMENTS	
STANDARD	SYMBOL	DESCRIPTION	STANDARD	SYMBOL	DESCRIPTION												
10	10	10	10	10	10												

GUSEVA, A. R.

USSR/Chemistry - Pyruvic Acid

Jan/Feb 1948

Chemistry - Condensation, Chemical

"Condensation of Pyrroacemic Acid in the Presence of Glycocol," A. M. Kuzin, Inst of Biochem imeni A. N. Bakh, Acad Sci USSR; A. R. Guseva, Moscow Lab of Chem of Plant Matter, 4 $\frac{1}{2}$  pp

"Biokhim" Vol XIII, No 1

Important position occupied by pyrroacemic acid in the process of the metabolism of carbons makes it clear that in the living organism it can serve as that basic material which when synthesized will produce the more complex materials having longer carbon chains and possessing acyclic or cyclic structures. Brief description of tests conducted.

Submitted 28 Apr 1947

PA 64T27

CA

Some unstable compounds in plants. A. R. GUSEV, Doklady Akad. Nauk SSSR 62, 113 (1978). By use of the usual methods for detn. of acyl phosphates (Lipmann, and Tuttle, C.A. 30, 8210, 38, 0272) macerates of green leaves in dil.  $\text{CCl}_3\text{COOH}$  were examd. for acyl phosphates. The operations were performed at 0-5° in the course of 1.5-20 min. A variety of specimens showed no acyl phosphate, using the 1st L. and T. procedure. When the 2nd method was used (hydroxylamine procedure), the results were abnormally high, in *Endosandra* the acyl phosphate value was 0.5%, whereas total P was but 0.3%. Hence, the procedure is not specific for acyl phosphates. The color appears only on maceration with  $\text{H}_2\text{NOH}$ . It is suggested that these substances are phenol-quinones which are known to be present in leaves. This was checked by color test of *p*-benzoquinone or dihydroresorcinol (red color with  $\text{H}_2\text{NOH}$ , semicarbazide,  $\text{FeCl}_3$ ). G. M. Kosolov

Inst. Biochem. in. A. N. Bakh, A S U S S R

ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION

11D

CA

Chemical composition of the root bark of *Evonymus verrucosa*. A. R. Guseva (Acad. Sci. U.S.S.R., Moscow; *Doklady Acad. Nauk S.S.S.R.* 71, 1077-80(1950).—The bark contains gutta-percha 2-10, resins 4-13, sol. carbohydrates 4.5-11.2, cellulose 13.6, pentosans 9-10, methylpentosans 1.1, pectins 4.0-5.3, dulcitol 1.5-2.0, acids: oxalic 2.2-6.1, citric 0.30-0.6, malic 0.70-1.8%, fumaric traces, phytosterols traces, P 0.16-0.21, N 2-2.5, ash 5%. Generally the monosaccharides are low during the rest period of the plant as well as during spring growth; disaccharides decline during growth by 50% or more, as do polysaccharides. Reducing sugars decline by 51% or more during the vegetation period. G. M. K.

SHENVA, A. R.

Rubber Plants, *Eucornia Ulmoides* Oliv.

Chemical composition of the leaves of eucornia (*Eucornia Ulmoides* Oliv.). Dokl.

AN SSSR 82 no. 5, 1952. Institut Biokhimii im. A. N. Pechka. Akademii Nauk SSSR.

Recd. 1<sup>st</sup> Dec. 1951.

Monthly List of Russian Accessions, Library of Congress, July 1952. Unclassified.

GUSEVA, A. R.

Chemical Abst.  
Vol. 48 No. 9  
May 10, 1954  
Biological Chemistry

Methods for the determination of flavone substances in plants. <sup>13)</sup> A. R. Guseva and M. N. Nersyuk (Bakh Inst. Biochem., Acad. Sci. U.S.S.R., Moscow). *Biokhimiya* 18, 480-3(1953).--In Wilson's method of org. plant analysis (C.A. 33, 8201\*) abs. acetone was replaced by 95% abs. acetone and 4% MeOH. The content of flavone substances in green and yellow leaves of *Eucommia*, the green leaves of *Euonymus*, yellow leaves of tobacco, and green leaves of tea was detd. by the original Wilson and modified methods. The use of the modified solvent yielded considerably higher values for glycosides of flavone substances in a variety of plant materials. B. S. Levine

*Gustav A.R.*

1482. Accumulation of gutta-percha and resin in the leaves of *Eucamnia* during growth. A. R. Gustav and I. G. Borzina. Doklady Akad. Nauk S.S.S.R., 1953, 83, 871-3; Hist. Abs., 1954, 24, abs. 1733. *Eucamnia* is an important source of gutta-percha. Analysis made in 1952 showed that latex formation in the leaves was slow at first, increased in September when 30% to 60% of the total latex content was accumulated and then remained constant till the end of the season. The resin content of the leaves was highest from June till September and then decreased. Periodical

determinations were also made of ash, silica, calcium, potassium, phosphorus, total nitrogen, and aucubin contents. 30 Gustav  
See also abstract 2712.

Inst. Biochem. in Bel,  
AS USSR

*Chemical Abstr.*

*Vol. 48 No. 9*

*May 10, 1954*

*Biological Chemistry*

GUSEVA, A.R.

USSR

Isolation of chlorogenic acid from leaves of *Eucalyptus* and its determination. A. R. Guseva (A. N. Sakh. Khim. Inst., Acad. Sci. USSR, Moscow), *Doklady Akad. Nauk S.S.S.R.*, 26, 1147-1148 (1969). Chlorogenic acid (1), a derivative of caffeic and quinic acids (cf. *Phytochem. Roboty Botan. Lab. Akad. Nauk, Petersburg No. 5*, (1969); Guseva, C. A. 1, 1148) was extd. from *Eucalyptus* leaves by treating them (20 kg.) with  $\text{CHCl}_3$ , mixing with 10 ml. 25%  $\text{H}_2\text{SO}_4$ , allowing the mixt. to stand overnight, and extg. it with dry  $\text{Et}_2\text{O}$  20-5 hrs. Because of its low soly. 1 gms. from the ext. in the form of an oil or a solid totally purified by crystn. from  $\text{H}_2\text{O}$ ; it m.  $208^\circ$  and is readily acid. by paper chromatography ( $R_f$  0.74). It is also found by this method in the stem and root cortex of the plant. Paper chromatography 1g.  $\text{Et}_2\text{O}$ (10)- $\text{AcOH}$ (20)- $\text{H}_2\text{O}$ (70)- $\text{CH}_3\text{OH}$ (5) is recommended. It is readily detected by blue ultraviolet fluorescence. For its detn., to 1 ml. test soln. is added 1 ml. of soln. prepd. from 1 ml. 5%  $\text{NaNO}_2$  and 2 drops 50%  $\text{H}_2\text{SO}_4$ , followed by 1 ml. 5%  $\text{KOH}$ ; a red color forms which is suitable for colorimetric detn. down to 20-40  $\mu\text{g}/\text{ml}$ . To remove diastases from the original ext. of *Eucalyptus* leaves, it is suggested that after the standing period with  $\text{H}_2\text{SO}_4$  (1 hr.), followed by  $\text{Et}_2\text{O}$  extn., the ext. be treated with 10 ml.  $\text{H}_2\text{O}$ ; the  $\text{Et}_2\text{O}$  distd., the residual soln. filtered, the filtrate dtd., and the residue used for the colorimetric detn.; the diastases are hydrolyzed and pptd. as indicated above and no longer interfere. Leaves of *Eucalyptus* contain 2.0-3.1% 1, considerably more than tuberos (0.2-0.3) or syndrome (up to 1.7% in the seeds). G. M. Kondratyuk.



GUSEVA, A.R.

USSR/ Biology - Biochemistry

Card 1/1 Pub. 22 - 21/40

Authors : Guseva, A.R., and Borikhina, M.G.

Title : ~~Eucommia leaves~~ Guttapercha and carotinoid content in Eucommia leaves in connection with their fall-color

Periodical : Dok. AN SSSR 99/3, 419-420, Nov 21, 1954

Abstract : The parallelism between the carotinoid and guttapercha contents in Eucommia leaves, and the polyisoprene structure of their mutual source, were established. The possibility of a single source for the synthesis of various polyisoprene compounds is discussed. The direct connection existing between the carotinoids and guttapercha in Eucommia leaves is explained. The carotinoid content in golden-yellow Eucommia autumn-leaves is much lower than the guttapercha content and a general competition between them is quite possible. Seven references: 5-USSR; 1-French and 1-Swiss (1930-1953). Tables.

Institution : Academy of Sciences USSR, The A.N. Bakh Institute of Biochemistry

Presented by : Academician A.I. Oparin, September 2, 1954

GUSEVA, A. R.

U.S.S.R.

The determination of chlorogenic acid and the dynamics of its accumulation of chlorogenic acid and of gutta in the leaves of *Eucommia*. A. R. Guseva and M. G. Borikhina (Inst. Biochem. Acad. Sci. U.S.S.R., Moscow). *Biochimiya* 20, 100-3 (1955); cf. *C.A.* 48, 5297i. — The content of chlorogenic acid in the leaves of *Eucommia* goes up to 3-4% in September. It remains const. throughout the vegetative period and even in the falling leaves. The same is true of the accumulation of gutta. The quantity of chlorogenic acid in the leaves of *Eucommia* is no dependable indicator of the quantity of gutta present in them. B. S. Leyne...

USEVA, A. P.

Med

This quantitative determination of the glycoalkaloids of the potato and methods for their separation. V. A. Paseshnikchenko and A. P. Guseva (A. N. Bakh Inst. Biochem. Acad. Sci. U.S.S.R., Moscow). *Biokhimiya* 21, 583-93 (1956).--The sequence of the sugars in  $\alpha$ -chaconine of *Solanum tuberosum* and of *S. chacoense* can be arranged as follows: solanidine-glucose-rhamnose-rhamnose.  $\alpha$ -Chaconine constitutes 95% of all the alkaloids in these plants. The remaining 5% are  $\beta$ - and  $\gamma$ -solanine and  $\beta$ - and  $\gamma$ -chaconine.  $\alpha$ -Solanine contains: solanidine, galactose, glucose, and rhamnose;  $\beta$ -solanine: solanidine, galactose, glucose;  $\gamma$ -solanine: solanidine, galactose;  $\beta$ -chaconine: solanidine, glucose, rhamnose;  $\gamma$ -chaconine: solanidine, glucose. These glycoalkaloids were identified by paper and column chromatographic partitioning (Kuhn, et al., *C.A.* 49, 02926; K. and Löw, *C.A.* 50, 18548). B. S. Levitsky

GUSEVA, A.R.; BORIKHINA, M.G.

Defoliation of Eucommia leaves. Vest.AN SSSR 26 no.4:39-40 Ap.  
'56. (Eucommia) (MLRA 9:7)

GUSEVA, A.R.; PASESHNICHENKO, V.A.

Enzymatic breakdown of potato glycoalkaloids [with summary in English]. Biokhimiia 22 no.5:843-848 S-O '57. (MIRA 11:1)

1. Institut biokhimii im. A.N.Bakha Akademii nauk SSSR, Moskva.  
(ALKALOIDS,  
glyco-alkaloids, fermentative splitting in potatoes (Rus))  
(GLYCOSIDES,  
same)  
(POTATONS,  
glyco-alkaloids, fermentative spletting (Rus))

GUSEVA, A.R. (Moskva)

Modern concepts of the biosynthesis of polyisoprenic compounds.  
Usp. sovr. biol. 43 no.1:3-11 Ja-F '57 (MIRA 10:5)  
(ISOPRENE)

GUSEVA, A.B., BORIKHINA, M.G.

Determining coenzyme A in higher plants by acetylating the amide of the sulfanilic acid [with summary in English]. Biokhimiia 23 no.2:291-295 Mr-Apr '58 (MIRA 11:6)

1. Institut biokhimii im. A.N. Bakha AN SSSR, Moskva.

(COENZYMES,

a, determ. in plants by acetylation of sulfanilamide by plant extracts (Rus))

(SULFANILAMIDE, metabolism

acetylation by plant extracts in determ. of coenzyme A activity of plant (Rus))

(PLANTS,

coenzyme A activity, determ. of acetylation of sulfanilamide by plant extract (Rus))

GUSEVA, A.R., PASHSHUICHENKO, V.A.

Studying the biogenesis of potato glycoalkaloids by the tagged  
atom method [with summary in English]. Biokhimiia 23 no.3:412-415  
My-Je '58 (MIRA 11:8)

1. Institut biokhimii im. A.N. Bakha AN SSSR, Moskva.  
(POTATOES, metabolism  
glycoalkaloid synthesis, determ. with isotope-labeling method  
(Rus))



GUSEVA, A.R.; PASESINICHENKO, V.A.

Enzymatic hydrolysis of glycoalkaloids contained in *Solanum aviculare*. *Biokhimiia* 24 no.3:563-565 My-Je '59.

(MIRA 12:9)

1. Institute of Biochemistry, Academy of Sciences of the U.S.S.R., Moscow.

(ALKALOIDS,

*Solanum aviculare* gluco-alkaloids, (enzymatic hydrolysis (Rus))

(GLUCOSIDES,  
same)

GUSEVA, A.R.; PASESHNICHENKO, V.A.; BORIKHINA, M.G.

Mevalonic acid as the precursor of some polyisoprene compounds in plants. Dokl.AN SSSR 133 no.1:228-229 Jul '60.  
(MIRA 13:7)

1. Institut biokhimii imeni A.N.Bakha Akademii nauk SSSR.  
Predstavleno akademikom A.I.Oparinyam.  
(MEVALONIC ACID) (PLANTS--METABOLISM) (ISOPRENE)

GUSEVA, A.R.; BORIKHINA, M.G.; PASESHNICHENKO, V.A.

Use of acetate in the biosynthesis of chaconine and solanine in  
potato sprouts. Biokhimiia 25 no.2:282-284 Mr-Apr '60.

(MIRA 14:5)

1. Institut biokhimii im. A.N.Bakha Akademii nauk SSSR, Moskva.  
(SOLANINE) (CHACONINE) (ACETATES)

GUSEVA, A. R., PASEVICHENKO, V. A., (USSR)

"Biosynthesis of Steroid Aglycone."

Report presented at the 5th Int'l. Biochemistry  
Congress, Moscow, 10-16 Aug 1961.

GUSEVA, A.R.; PASESHNICHENKO, V.A.; BORIKHINA, M.G.

Synthesis of radioactive mevalonic acid and its use for the study of the biosynthesis of steroid;glycoalkaloids in Solanum. Biokhimiia 26 no.4:723-728 J1-Ag '61. (MIRA 15:6)

1. Institute of Biochemistry, Academy of Sciences of the USSR, Moscow.

(ALCALOIDS) (NIGHTSHADE) (MEVALONIC ACID)

GUSEVA, A.R.; PASESHNICHENKO, V.A.; BORIKHINA, M.G.

Inclusion of  $C^{14}O_2$  into glycoalkaloids in the leaves of *Solanum aviculare*. *Biokhimiia* 28 no.4:709-711 J1-Ag '63.

(MIRA 18:3)

1. Institut biokhimii imeni Bakha AN SSSR, Moskva.

GUSEVA, A.R.

Mevalonic acid in the biosynthesis of isoprene compounds.  
Usp. biol. khim. 6:240-263 '64. (MIRA 18:3)

1. Institut biokhimi imeni Bakha AN SSSR, Moskva.

GUSEVA, A.R.; PASESHNICHENKO, V.A.; BORIKHINA, M.G.; MOISEYEV, R.K.

Determination of steroid glycoalkaloids in *Solanum laciniatum*.  
Biokhimiia 30 no.2:260-264 Mr.-Ap '65.

(MIRA 18:7)

1. Institut biokhimii imeni Bakha AN SSSR, Moskva.



FASESHNICHENKO, V.A.; GUSEVA, A.R.

Separation and determination of essential oil components with the help of thin-layer chromatography on silica gel and also in the form of  $\pi$ -complexes with silver ions. Prikl. biokhim. i mikrobiol. 1 no.5:559-562 S-O '65.

Colorimetric microdetermination of acyclic terpene alcohols of essential oils. Ibid.:563-565 (MIRA 18:11)

1. Institut biokhimii imeni A.N. Bakha AN SSSR.

BORIKHINA, M.G.; PASESHNICHENKO, V.A.; GUSEVA, A.R.

Quantitative determination of  $\beta$ -phenylethyl alcohol in essential oils. Prikl. biokhim. i mikrobiol. 1 no. 6:689-692 N.D '65.

(MIRA 18:12)

1. Institut biokhimii imeni Bakha AN SSSR. Submitted April 16, 1965.

GUSEVA, A.R.; PASESHNICHENKO, V.A.

Effect of the fermentation of rose petals on the terpene alcohol  
content in rose oil. Prikl. biokhim. i mikrobiol. 1 no. 6:731  
N-D '65. (MIRA 18:12)

1. Institut biokhimii imeni Bakha AN SSSR. Submitted Nov. 10,  
1965.

GUSEVA, A.S.

Method for accelerated determination of effective porosity. Trudy  
VNIGRI no.155:319-324 '60. (MIRA 14:1)  
(Rocks--Permeability)

GUSEVA, A.S.

Tabular method for calculating the gas permeability coefficient  
of rocks. Trudy VNIGRI no.174:238-242 '61. (MIRA 14:12)  
(Rocks---Permeability)  
(Gas)

S/065/63/000/004/004/004  
A057/A126

AUTHORS: Bespolov, I.Ye., Guseva, A.V., Timonicheva, O.I.

TITLE: On the dependence between the value of the heat-transfer coefficient and the lower heat of fuel combustion

PERIODICAL: Khimiya i tekhnologiya topliv i masel, no. 4, 1963, 64 - 65

TEXT: The authors determined a linear function between the heat-transfer coefficient and the lower heat of combustion of reactive fuels which is expressed by the equation:  $Q_N = 9939 + 0.0615 \cdot K$  kcal/kg ( $Q_N$  = the determined combustion heat of the fuel,  $K$  = heat-transfer coefficient). The calorific capacity of industrial samples of reactive fuels calculated by this equation are practically the same as the experimentally determined values. The heat-transfer coefficient is calculated from data on density and the aniline point of the fuel, thus no special apparatus are necessary. The heat-transfer coefficients, heat of combustion, and calorific capacity of the Soviet reactive fuels of TC -1 (TS-1), T-1 (T-1), T-2 (T-2), and T-5 (T-5) grades and foreign fuels JP-1, JP-4, and ATK (aviation turbine kerosene) were determined. The results obtained

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On the dependence between the value of the ....

S/065/63/000/004/004/004  
A057/A126

could be used in continuous control of technological devices to exchange the complicated determination of the combustion heat with the determination of the heat-transfer coefficient. The method of determining the combustion heat by means of the heat-transfer coefficient could be introduced as a standard test method. There are 2 tables and 1 figure.

ASSOCIATION: VNII NP

Card 2/2

GUSEVA, A. YA.

36793. GUSEVA, A. YA. Khorosho podgotovit' zimovku kol'khoz'nogo skota. sots. sel. khoz-vo uzbekistana, 1949, No 41, c. 65-69

SO: Letopis' Zhurnal' nykh Statey, Vol. 50, Moskva, 1949



Guseva, D. M.

Ascorbic acid content in different varieties of cotton. A. S. Sadykov and D. M. Guseva. *Doklady Akad. Nauk Uzbek. S.S.R.* 1954, No. 3, 31-40 (in Russian. Uzbek summary); *Referat. Zhur., Khim.* 1954, No. 40514. The ascorbic acid content was detd. in leaves during several vegetative phases. The upper leaves contained more ascorbic acid than did the lower. This is attributed to better illumination and more intense photosynthesis. M. Hosh

PETROV, A.Z.; GUSEVA, A.V.

Rate of variation of a gravitational field, Uch. zap. Kaz. un. 123  
no.12:77-91 '63. (MIRA 17:11)

MUSABAYEV, I.K., prof.; GUSEVA, D.M.

Alkaline phosphatase in the blood of patients with A<sub>2</sub> viral influenza.  
Med. zhur. Uzb. no.2:9-11 F '62. (MIRA 15:4)

1. Iz kliniki infeksionnykh bolezney Tashkentskogo instituta  
usovershenstvovaniya vrachey.  
(INFLUENZA) (PHOSPHATASES)

MUSABAYEV, I.K., prof.; NUGMANOVA, R.N., aspirant; GUSEVA, D.M.

Manganese content in the blood serum of infectious hepatitis patients. Nauch.trudy uch.i prak.vrach.Uzb. no.3:62-65 '62.  
(MIRA 16:2)

1. Iz kliniki infektsionnykh bolezney Tashkentskogo gosudarstvennogo instituta dlya usovershenstvovaniya vrachey (zav. - chlen-korrespondent AMN SSSR prof. I.K. Musabayev).  
(MANGANESE IN THE BODY) (HEPATITIS, INFECTIOUS)

MUSABAYEV, I.K., prof.; LERENMAN, M.Ya.; GUSEVA, D.M.

Adsorbed bilirubin fraction as a prognostic index in infectious hepatitis. Nauch.trudy uch.i prak.vrach.Uzb. no.3:81-87 '62.

(MIRA 16:2)

1. Iz kafedry infektsionnykh bolezney Tashkentskogo gosudarstvennogo instituta dlya usovershenstvovaniya vrachey (zav. - chlen-korrespondent AMN SSSR prof. I.K. Musabayev).

(BILIRUBIN) (HEPATITIS, INFECTIOUS)

NUGMANOVA, R.N.; MUSABAYEV, I.K.; GUSEVA, D.M.; MUKHAMEDOVA, I.G.

Determination of cobalt in blood serum. Uzb. khim. zhur. 7  
no.5:20-25 '63. (MIRA 17:2)

1. Tashkentskiy institut usovershenstvovaniya vrachey.

MUSABAYEV, I.K.; GUSEVA, D.M.

Electrophoretic study of the serum proteins in viral influenza

A2. Zhur. mikrobiol., epid. i immun. 40 no.4:38-43 Ap '63.

(MIRA 17:5)

1. Iz Tashkentского instituta usovershenstvovaniya vrachey.

GUSEVA, E.A.  
KRIVIN, B.G.; ZAOSTROVSKAYA, Ye.N., spetsredaktor; GUSEVA, E.A., redak-  
tor; CHEBYSHEVA, Ye.A., tekhnicheskiiy redaktor.

[Tomato big bud and means of controlling it] Stolbur tomator  
i mery bor'by s nim. Moskva, Pishchepromizdat, 1957. 55 p.  
(Tomatoes—Diseases and pests)



MATROZOVA, R.G.; GUSEVA, E.A., redaktor; MUSTAFIN, A.M., tekhnicheskiiy  
redaktor

[Botulism bacillus in the canning industry] Mikrob botulizma v  
konservnoi promyshlennosti. Moskva, Pishchepromizdat, 1957.  
117 p. (MIRA 10:10)  
(Clostridium botulinum)

GUSEVA, E.A.; SHAPOSHNIKOV, Yu.K.

Functional state of the thyroid gland in persons having come into  
contact with granosan. Gig. truda i prof. zab. 4 no.6:32-35 Je '60.  
(MIRA 15:4)

1. Institut gigiyeny truda i professional'nykh zabolevaniy, Gor'kiy.  
(THYROID GLAND) (IODINE--ISOTOPES) (ETHYL CHLORIDE--TOXICOLOGY)

GUSEVA, E. A. (Engineer) and NOVOSADOV, V. S. (Engineer) (Moscow)

"Arc arc welding of zirconium with titanium and niobium, niobium with titanium".  
Considerable attention was given to heat treatment and study of properties of these combinations over an extended period of time.

Report presented at the 1st All-Union Conference on welding of heterogeneous metals, at the Inst of Electric Welding im. Ye. O. Paton, 14-15 June 1963.  
(Reported in Avtomaticheskaya svarka, Kiev, No. 9, Sept 1963, pp. 95-96, author, V. R. Ryabov)  
JPRS 24,651 19 May 64

GUSEVA, F. G.

"Arthrodesis of the Knee Joint without Shortening the Extremity in Complications of Poliomyelitis." Gor'kiy State Medical Inst imeni S. M. Kirov, Gor'kiy, 1955.  
(Dissertation for the Degree of Candidate in Medical Sciences)

SO: Knizhnaya Letopis', No. 22, 1955, pp 93-105

PINAYEVSKAYA, Ye.N.; ANTOSHKINA, N.L.; GUSEVA, G.G.

Aqueous reciprocal system of sodium and calcium chromates and  
nitrates. Zhur.prikl.khim. 34 no.8:1722-1739 Ag '61.  
(MIRA 14:8)

(Sodium nitrate) (Calcium chromate)

SOV/126 - -7-5-3/25

AUTHORS: Guseva, G. I., Taluts, G. G.

TITLE: On the Theory of Collective Excitations of a System of Electrons in a Solid Body (K teorii kollektivnykh vozbu-zhdeniy sistemy elektronov v tverdom tele)

PERIODICAL: Fizika metallov i metallovedeniye, 1959, Vol 7, Nr 5, pp 658-665 (USSR)

ABSTRACT: The method of collective coordinates and momenta is used to study the spectrum of collective excitations of a system of electrons in a solid body. Transitions between bands as well as within bands are taken into account. The connection between oscillations of the plasma type and Frenkel' type exciton excitations is elucidated. This is particularly important in semiconductors where both types of excitation play an important role. The Hamiltonian is written in the form given by Eq (3), where  $a_{\alpha}^{\dagger}$ ,  $a_{\alpha}$  are Fermi operators and  $L(\alpha\alpha')$  and  $F(\alpha_1\alpha_2;\alpha_1'\alpha_2')$  are matrix elements of the additive and binary type. The Fourier components of the

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SOV/126-- -7-5-3/25

On the Theory of Collective Excitations of a System of Electrons in a Solid Body

electron density given by Eq (4) are taken as the collective coordinates and the corresponding momentum operator is taken in the form of Eq (5). In the second quantisation representation the collective variables are given by Eqs (6) and (7). The new operators given by Eq (8) are shown to obey Bose-Einstein commutation relations and the matrix elements

$\rho_{\vec{k}}(\alpha\alpha')$  and  $\rho'_{\vec{k}}(\alpha\alpha')$  satisfy condition (9). Using the operators given by Eq (8), the Hamiltonian given by Eq (3) can be rewritten in the form of Eq (10). When the system does not deviate very considerably from the ground state, only the first three terms need be taken. The expansion coefficients are given by Eq (11). The Hamiltonian for the collective excitations is then given by Eq (12) where  $L_2$  and  $L'_2$  are certain combinations of the matrix operators  $L(\alpha\alpha')$ ,  $\rho(\alpha\alpha')$  and  $\rho'(\alpha\alpha')$ .  $G(k)$  is the Fourier component of the kernel of the inter-electron interaction. Exchange effects are neglected. The Hamiltonian (12) is diagonalized by the usual method (Ref 10). The energy of the collective excitation turns out to be given by Eq (13),

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On the Theory of Collective Excitations of a System of Electrons in a Solid Body

where  $A$  and  $C$  are given by Eq (14). It is shown on the basis of these equations that the spectrum of collective excitations when electron transitions within bands are taken into account consists of a series of energy bands, each of which is associated with a different form of excitation of the system. In experiments concerned with the scattering of fast charged particles by crystals, one normally observes a few absorption lines. One of these lines can often be associated with purely plasma oscillations of the electron system (Ref 1). The present calculation

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SOV/126-- -7-5-3/25

On the Theory of Collective Excitations of a System of Electrons in a Solid Body

indicates that the remaining lines are due to other forms of excitation. There are 11 references, of which 5 are Soviet, 5 English.

ASSOCIATION: Ural'skiy gosudarstvennyy universitet imeni A. M. Gor'-kogo, Institut fiziki metallov, AN SSSR (Urals State University imeni A. M. Gor'kiy, Institute of the Physics of Metals, Academy of Sciences, USSR)

SUBMITTED: June 23, 1958.

Card 4/4

40887

S/181/62/004/009/023/045  
B104/B186

24.7600

AUTHORS: Guseva, G. I., and Tsidil'kovskiy, I. M.

TITLE: Transfer effects in n-type InSb

PERIODICAL: Fizika tverdogo tela, v. 4, no. 9, 1962, 2490-2506

TEXT: An attempt was made to elucidate the influence which deviation of electron dispersion in InSb from the square law exerts on galvanomagnetic and thermomagnetic effects; also to establish, from a comparison of experimental with theoretical results, whether the optical or the acoustic scattering mechanism predominates. For this purpose the thermomagnetic and galvanomagnetic effects in n-type InSb were studied within the range of mixed conductivity, both below and above the characteristic temperature, and using electron gases of different degeneracy. Conclusions: (1) At 295 and 600°K, the magnetic resistance is in good agreement with the values obtained by assuming optical dispersion. The values obtained for acoustic scattering differ from the above values by 2 to 4 orders of magnitude. (2) At 295°K, the magnetic resistance in strong magnetic fields agrees well with the values obtained  
Card 1/2

Transfer effects in n-type InSb

S/181/62/004/009/023/045  
B104/B186

for optical dispersion. (3)  $R_0/R_{\infty}$  agrees well with the values obtained for optical scattering, but differs considerably from those obtained for acoustic scattering. (4) The variations of the thermo-emf in a weak magnetic field at 600°K, and the Nernst-Ettinghausen effect observed at this temperature, are consistent with the values obtained for optical dispersion; but they differ greatly from those obtained for acoustic scattering. There are 5 figures and 6 tables. ✓

ASSOCIATION: Institut fiziki metallov AN SSSR, Sverdlovsk  
(Institute of the Physics of Metals AS USSR, Sverdlovsk)

SUBMITTED: May 3, 1962

Card 2/2

DISC  
S/181/63/005/001/041/064  
B108/B180

AUTHORS: Guseva, G. I., and Tsidil'kovskiy, I. M.

TITLE: Concentration dependence of the effective mass of the electrons in InSb, InAs, and GaAs

PERIODICAL: Fizika tverdogo tela, v. 5, no. 1, 1963, 263-268

TEXT: The dispersion relations for InSb, InAs and GaAs do not follow a square law. The effective mass is therefore a function of energy, which can be given approximately as  $m = m_n(1 + (2 - 4v)\xi - 6v\xi^2)$ , where  $v = m_n/m_0$ ,  $\xi = E/\epsilon_g$ ,  $m_n$  is the electron mass at the bottom of the band,  $m_0$  is the free electron mass  $\epsilon_g$  is the forbidden band width. Determination of the effective mass from De Broglie's relation  $\hbar\vec{k} = m\vec{v}$ , where  $E = E(|\vec{k}|)$  gives cyclotron mass  $m^{-1} = \frac{1}{\hbar^2} \frac{1}{k} \frac{dE}{dk}$ . This holds for InSb, InAs, and GaAs as these compounds have spherical isoenergetic electron surfaces. If the electron gas is degenerate, the effective mass as

Card 1/2

Concentration dependence of ...

S/181/63/005/001/041/064  
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formulated above is only applicable as long as  $\xi/\epsilon_g - \bar{\epsilon} < k_0 T/\epsilon_g$  ( $\xi$  is the Fermi energy). However,  $m(\epsilon)$  either has to be averaged over the states or a mean energy  $\bar{\epsilon}$  has to be found so that  $m = m(\bar{\epsilon})$ .  $\bar{m}(\epsilon)$  was calculated as a function of concentration  $n$ . The curves are similar for all three compounds: initially flat, sharp rise between concentrations of  $10^{18}$  and  $10^{19} \text{ cm}^{-3}$ .  $\bar{m}$  increases with temperature, particularly at concentrations where degeneracy is still low. The experimental and calculated values of the effective mass agree well with one another. There are 4 figures and 3 tables.

ASSOCIATION: Institut fiziki metallov AN SSSR, Sverdlovsk  
(Institute of Physics of Metals AS USSR, Sverdlovsk)

SUBMITTED: August 7, 1962

Card 2/2

GUSEVA, G.I.

Thermoelectromotive force in a quantized magnetic field with a quadratic anisotropic dispersion law. Fiz. met. i metalloved. 18 no.3:321-332 S '64.

1. Institut fiziki metallov AN SSSR.

GUSEVA, G.I.; ZVEREVIN, A.K.

Transfer effects in  $n$ -InSb in inelastic polar scattering of  
electrons. Fiz. tver tela 7 no.6:1879-1880 Je '85.

(MIRA 18:6)

1. Institut fiziki metallov AN SSSR, Sverdlovsk.

L 2512-66 ENT(1)/EPA(w)-2/EWA(m)-2 IJP(c) AT

ACCESSION NR: AP5014599

UR/0181/65/007/005/1879/1880

AUTHOR: Guseva, G. I.; Zvezdin, A. K.

TITLE: On transport phenomena in n-InSb in the case of inelastic polar scattering of electrons

SOURCE: Fizika tverdogo tela, v. 7, no. 6, 1965, 1879-1880

TOPIC TAGS: electron scattering, indium alloy, inelastic scattering, transport theory

ABSTRACT: To determine the dominating mechanism of carrier scattering in n-InSb, the authors used a variational method to calculate some galvanomagnetic and thermomagnetic effects in n-InSb in the case of inelastic scattering of electrons by polarization phonons and intermediate degeneracy at temperatures below the Debye temperature. The calculation is based on the Boltzmann equation expressed in canonical form. The kinetic coefficients were calculated by means of an electronic computer, with all effects calculated in the third approximation in the energy. It is concluded that the published data are in much better agreement with results of calculations for scattering by optical phonons than for acoustical phonons. The authors are sincerely grateful to I. M. Tsidil'kovskiy and G. I. Kharus for useful

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L 2512-66

ACCESSION NR: AP5014599

discussions". Orig. art. has: 1 formula and 1 table.

ASSOCIATION: Institut fiziki metallov AN SSSR, Sverdlovsk (Institute of Metal  
Physics AN SSSR) 44,85

SUBMITTED: 11May64

ENCL: 00

SUB CODE: 83, NP

NR. REF SOV: 002

OTHER: 007

90

Card

2/2

GUSEVA, G.K., assistant

State of the secretory function of the stomach in sluggish  
recurrent rheumatic carditis. Sbor. nauch. trud. Ivan. gos.  
med. inst. no.25:54-58 '62. (MIRA 17:5)

1. Iz kafodry gosital'noy terapii (zav. - prof. Ye.S. Myasovedov)  
Ivanovskogo gosudarstvennogo meditsinskogo instituta (rektor -  
dotsent Ya.M. Romanov).

L 5290-66 EWT(m)/EPF(c)/EWP(j) T RPL WW/RM

ACC NR: AP5022052

SOURCE CODE: UR/0286/65/000/014/0129/0129

AUTHORS: Guseva, I. A.; Mal'kov, N. S.; Makarov, Yu. A.; Kulev, E. A.; Izmaylova, I. S.; Shvareva, G. N.; Khantsis, R. Z.; Gladyshev, A. I.; Perepelkin, V. P.; Nikitina, D. M.; Chekunin, K. I.; Rodsiminskiy, V. V.

ORG: none

TITLE: Method for obtaining copolymers. Class 39, No. 144021

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 14, 1965, 129

TOPIC TAGS: copolymer, pressure casting

ABSTRACT: This Author Certificate presents a method for obtaining copolymers on the basis of methyl methacrylate and esters of acrylic acid by a suspension method. To obtain colorless copolymers suitable for fabricating products by casting under pressure, higher alcohols, e.g., octyl, as a plasticizer, esters of phthalic acid, e.g., dicyclohexyl, as a stabilizer, and derivatives of aminocumarone, e.g., phenyl ester of (naphtho-1", 2":4', 5')-triazoline (2')-stilbene-2-sulfoacid, as a clarifier are added to the mixture.

SUB CODE: MT, GC/ SUBM DATE: 15May61/ ORIG REF: 000/ OTH REF: 000

Card 1/1

0901.0501

VEPRIK, Ya.M.; GUSEVA, I.A.; ZHDANOV, A.P.; MARTYSH, G.G.; SHUR, L.I.

Nuclear emulsions developable in water-alkali solutions.  
Zhur. nauch. i prikl. fot. i kin. 9 no.3:207-208 My-Je '64.  
(MIRA 18:11)

1. Leningradskiy institut kinoinzhenerov i Radiyevyy institut  
imeni Khlopina, Leningrad. Submitted December 16, 1963.

GUSEVA, I. B.

21032 Guseva, I.B. Skoliozy deskogo vozrasta po materialam Institutn Trudy In-ta (Kazansk Nauch--issled in-t ortopedii i vosstanovit Khirurgii) t.111, 1949, p. 159-67.

SO: LETOPIS ZHURNAL STATEY - Vol. 28, Moskva, 1949

GUSEVA, I. B.

Chemical Abst.  
Vol. 48 No. 4  
Feb. 25, 1954  
Organic Chemistry

✓Catalytic hydrocondensation of carbon monoxide with olefins. IX. Reaction of methyl and ethyl alcohol with ethylene. Ya. T. Elduz and I. V. Guseva (Inst. Org. Chem., Acad. Sci. U.S.S.R., Moscow). *Izvest. Akad. Nauk S.S.S.R., Otdel. Khim. Nauk* 1952, 1075-81; cf. C.A. 46, 11095h; 11122h. Since mixts. of  $C_2H_4$  with  $H_2$  and CO condense, it was expected that compds. able to decomp. into CO and  $H_2$  would also enter a condensation reaction with olefins on the same catalysts. The expected reaction scheme, involving intermediate  $CH_3$  radicals, for MeOH is,  $MeOH + CH_2=CH_2 \rightarrow (CO + 2 H_2 + CH_3:CH_2) \rightarrow (CH_3 + H_2O + CH_3:CH_2) \rightarrow MeCH:CH_2 + H_2O$ ;  $MeOH + MeCH:CH_2 \rightarrow (CO + 2 H_2 + MeCH:CH_2) \rightarrow (CH_3 + H_2O + MeCH:-CH_2) \rightarrow MeCH_2CH:CH_2 + H_2O$ , etc. Similarly, with EtOH, one can expect a build-up of higher hydrocarbons according to the scheme  $EtOH + CH_2=CH_2 + H_2 \rightarrow (CO + 2 H_2 + CH_3:CH_2 + CH_3) \rightarrow (CH_3 + H_2O + CH_3:CH_2 + CH_3) \rightarrow MeCH:CH_2 + H_2O + CH_3$ ;  $MeCH:CH_2 + EtOH + H_2 \rightarrow (CO + 2 H_2 + MeCH:CH_2 + CH_3) \rightarrow (CH_3 + H_2O + MeCH:CH_2 + CH_3) \rightarrow EtCH:CH_2 + H_2O$ , etc. Expts. have confirmed this. Mixts. of  $C_2H_4$  + H were bubbled through liquid MeOH or EtOH and so charged with known amts. of alc. vapor, and passed, at 200°, over catalysts, partly fresh and partly having served previously in hydrocondensation of  $C_2H_4$  + H + CO. For example (with MeOH counted as CO + 2H<sub>2</sub>) 47.8 vol.-%  $C_2H_4$ , 46.7 vol.-% H, and 5.7 vol.-% CO at a space velocity of 81; yields 4.0%  $C_2H_6$ , 26.5% H, 3.1% CO, and 66.4 vol.-%  $C_2H_4$ ; % reacted, 97.2  $C_2H_4$ , 81.3 H, 81.8 CO; liquid space velocity for MeOH, 0.01;  $C_2H_6$  produced in % of  $C_2H_4$  reacted, 47.6; wt.-% MeOH reacted, 77.6. In this run, the yield of heavy oil was 7.9 ml./cu. m., light oil 122.8 ml./cu. m., gas oil (C<sub>7</sub>-C<sub>9</sub>) 184.6 ml./cu. m.; total yield of oil, 285.3 ml./cu. m. (23.2 ml./l. hr.); mole ratio MeOH:H<sub>2</sub>: $C_2H_4$  reacted, 1:3.2:6.2. The CO present in the final

(OVER)

product corresponds to that part of MeOH which was decompd. without entering condensation. The fractions of  $C_2H_4$  or H consumed in the hydrocondensation are obtained by deducting the amts. corresponding to production of  $C_2H_4$  from the total amts. reacted. The percentage of MeOH reacted varied from 60 to 90%; from 68 to 100% of it enters the hydrocondensation, and 32-0% appears as CO. The percentage of  $C_2H_4$  reacted varied from 69 to 90.5%, of which, depending on conditions, from 22 to 65% is hydrogenated to  $C_2H_6$ . The mole ratio  $MeOH:H_2:C_2H_4$  reacted, roughly 1:3:5, is close to the mole ratio  $CO:H_2:C_2H_4$  reacted in condensation  $CO + H_2 + C_2H_4$ . The yields of condensate are also close, and so are the properties of the oil fractions; an example is, fraction b. below  $150^\circ$ , yield 2 vol.-%, unsatd. hydrocarbons 67%; b.  $150-220^\circ$ , 15.5, 46; residue 17.3. An example of a run with  $C_2H_4 + H_2 + EtOH$ , at  $200^\circ$ , is: calcd. compn.,  $C_2H_4$  24.8,  $H_2$  46.0, CO 14.6,  $CH_4$  14.6, vol.-% space velocity 183; compn. of final gas,  $C_2H_4$  2.0,  $H_2$  37.9, CO 2.2,  $C_2H_6$  67.9%; % reacted,  $C_2H_4$  97.3,  $H_2$  72.5, CO 93.7; liquid space velocity for  $EtOH$ , 0.11;  $C_2H_4$  produced, in % of  $C_2H_4$  reacted, 18.2; wt.-%  $EtOH$  reacted 72.6; yield of heavy oil 11.7, light oil 87.4, gas oil 128.1 ml./cu. m., total oil 227.2 ml./cu. m. (35.4 ml./l. hr.). The fraction of  $EtOH$  reacted, depending on its space velocity, 0.04-0.11, varied from 53.3 to 72.6%, of which 88-97% enters hydrocondensation with  $C_2H_4$ , and only 3-12% appears as CO. The percentage of  $C_2H_4$  reacted is 90-9%, of which 18-57% is hydrogenated to  $C_2H_6$ . In the liquid condensate, the fraction b. below  $150^\circ$  (80 vol.-%) contains 38% unsatd. compds.; b.  $150-210^\circ$  (11.0), 30; residue 4.2%. The 1st fraction contains a small amt. of org. O compds.

N. Thon

7-28-54

GUSEVA, I. G.

7885. GUSEVA, I. G. Metodika izmereniy skoliozov. kazan; tatknigizdat, 1954.  
8s. s ill. 20 sm. (Kazan. Nauch.-issled. in-t ortopedii i vosstanovit. khirurgii  
M-va zdravookhraneniya RSFSR. metod. materialy. vyp. 13). 1.000EKZ. Bespl.--avt.  
ukazan NA 3-y s.--(55-966zh)

616.711-007.55

SO: Knizhuaya letopis', Vol. 7, 1955



GERASIMOVA, Natal'ya Alekseyevna; GUSEVA, I.G.

[Method for measuring the movements of the spine and extremities;  
methodological material] Metodika izmereniia dvizhenii pozvonochnika  
i konechnostei; metodicheskie materialy. Kazan', Izd-vo Kazanskogo  
univ., 1960. 38 p. (MIRA 14:8)  
(ORTHOPEDIA--EQUIPMENT AND SUPPLIES)

GUSEVA, I.L.

Late results of a combined (surgical and radiation) treatment  
of cancer of the breast. Trudy TSIU 62:373-378 '63.

(MIRA 18:3)

1. I kafedra rentgenologii (zav. zasluzhennyi deyatel' nauki prof.  
S.A.Reynberg) Tsentral'nogo instituta usovershenstvovaniya vrachey.

TRET'YAKOVA, T.A.; GUSEVA, I.L.

Pulmonary reaction to  $\gamma$ -irradiation of patients with esophageal cancer using  $\text{Sc}^{137}$ . Med. rad. 10 no.11:72-76 N '65.

{MIRA 19:1}

1. I-ya kafedra rentgenologii i radiologii (zav. - prof. S.A. Reynberg) Tsentral'nogo instituta usovershenstvovaniya vrachey, Moskva. Submitted October 28, 1964.

MELANKHOLIN, N.M.; GUSEVA, I.N.

Scattering of light in certain synthetic crystals. Kristallografiia  
8 no.6:884-888 N-D'63. (MIRA 17:2)

1. Institut kristallografi AN SSSR.

24.3950  
15.2110

30553

S/564/61/003/000/029/029  
D207/D304

AUTHOR:

Guseva, I. N.

TITLE:

Refractive indices and transparency of synthetic quartz  
crystals in ultraviolet light

SOURCE:

Akademiya nauk SSSR. Institut kristallografii. Rost  
kristallov, v. 3, 1961, 494-497

TEXT: The author studied the optical properties of synthetic quartz  
with a view to its possible use in spectrographs and spectrophotometers.  
Quartz samples differed in their homogeneity: some of them had "heavy  
phase" inclusions which was colloidal impurity. Optical transmission  
was measured using unpolarized light of 2170 - 4000 Å wavelengths and  
a CΦ-4 (SF-4) spectrophotometer. Quartz crystals grown using a seed  
oriented parallel to the pinacoid could be divided into three groups:  
(1) those with a transmission of 90% or more at 2200 Å; (2) those with

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D207/D304

Refractive indices...

a transmission of 80 - 90% at 2200 Å, and (3) those with a transmission of about 70% at 2200 - 3000 Å. In all three cases the transmission increased with wavelength to 90 - 95% at 4000 Å. The transmission was better at right-angles to the optic axis. The best samples of synthetic quartz, grown slowly under steady conditions, had as good a transmission as natural quartz, and this transmission did not vary with the crystallographic direction. Refractive indices (n) were obtained by Obreimov's method: Immersion of a sample and a glass or quartz standard of known n in a liquid with a similar refractive index. The value of n was found from the optical path difference between the sample and the standard. The results were:  $n_C = 1.54457$ ,  $n_D = 1.54804$ ,  $n_F = 1.55655$  --- all accurate to within  $\pm 0.0001$ . The values of n for ordinary and extraordinary rays were within  $\pm 0.0001$  of those quoted for natural quartz ( $n_o = 1.5443$ ,  $n_e = 1.5536$ ) in G. W. C. Kaye and T. H. Laby's "Tables of Physical and Chemical Constants" (Russian translation published in 1949). Germanium impurities in synthetic quartz raised the

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D207/D304

Refractive indices...

refractive index by 0.0003 and raised the  $\alpha \rightleftharpoons \beta$  phase transition temperature. Aluminum impurities lowered the refractive index by 0.0005 - 0.0006 and lowered the  $\alpha \rightleftharpoons \beta$  transition temperature. This suggests that refractive index can be used to detect impurities in synthetic quartz. There are 2 figures and 5 Soviet-bloc references.

X

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ACCESSION NR: AP4039409

S/0070/64/009/003/0432/0435

AUTHOR: Guseva, I. N.; Urusovskaya, A. A.

TITLE: Investigation of certain properties of samarium-doped synthetic fluorite

SOURCE: Kristallografiya, v. 9, no. 3, 1964, 432-435

TOPIC TAGS: synthetic fluorite, samarium doped fluorite, fluorite crystal, single crystal growth, samarium plus 2 ion crystal property

ABSTRACT: The lattice constant, density, density of dislocations, and quantity and dimensions of light-dispersing inclusions have been determined in different sections along a samarium-doped fluorite crystal grown by the Stockbarger method. These properties, supposed to be characteristic of the defectiveness of a crystal, were correlated with the distribution along the crystal of  $\text{Sm}^{+2}$  as determined by the change in the absorption coefficient at maximum absorption. The unequal distribution of  $\text{Sm}^{+2}$  explains the

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ACCESSION NR: AP4039409

nonuniformity of color in certain specimens. It was shown that all the characteristics studied, except the lattice constant, increased as the absorption coefficient increased, i.e., with the  $\text{Sm}^{+2}$  concentration, which corresponds to increasing color intensity. The changes in characteristics along a single fluorite crystal are explained by the presence of extraneous phases. Orig. art. has: 2 figures and 1 table.

ASSOCIATION: Institut kristallografi AN SSSR (Institute of Crystallography, AN SSSR)

SUBMITTED: 05Nov63/

DATE ACQ: 18Jun64

ENCL: 00

SUB CODE: SS

NO REF SOV: 002

OTHER: 004

Card 2/2

GLSEVA, I. N.

"Geographic Wall Maps for A High School Course on the Physical  
Geography of the USSR," Cand Geog Sci , Moscow Order of Lenin State U  
imeni M. V. Lomonosov, (VM, 21 Dec 54 )

Survey of Scientific and Technical Dissertations Defended at USSR  
Higher Educational Institutions (12)  
SO: Sum. No. 556, 24 Jun 55

GUSEVA, I-N.

FD-2180

USSR/Miscellaneous

Card 1/2 Pub. 129-20/20

Author : -

Title : Life in Moscow University

Periodical : Vest. Mosk. Un., Ser. fizikomat. i yest. nauk, 10, No 2, 171-178,  
Mar 1955

Abstract : Six brief notices: I. A. Voronkov, "Scientific relation os Moscow Univ. with peoples' democratic countries." N. Filin, "Exhibition on the history of Moscōw University." Anonymous "Scientific council Moscow State U. on the natural sciences." G. I. Roxhkova (head of the chairs and Ye. I. Motina, "Work of the Chairs of the Russian Language for students and foreign aspiaeatnts." Anonymous, "In honor of Prof. N. A. Kachinskiy." O. Kibal'chich, "Defense of dissertations" (The candidate dissertation of the following four were defended at the end of 1954 in the Geographical Faculty: I. F. Antonova, "Power engineering and metallurgy of Canada;" K. P. Kosmachev, "Economic geographical characteristics of agriculture in the region between the rivers Lena and Amga, Yakutsk ASSR;" I. N. Guseva, "Wall Maps for the

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FD-2180

course 'Physical Geography of the USSR' in higher school; I. M. Klevanova, "Landscape characteristics of the sandy massif of the Northeastern Prikaspiy ( Caspian Region).").

Institution :

Submitted :

GEDYMIN, A.V.; YANIKOV, G.V.; STUDENIKIN, M.V.; GUSEVA, I.N.

More on emphasis of maps. Vop.grog. no.37:206-209 '55. (MLR 8:12)  
(Geography--Study and teaching) (Kolosovskii, Nikolai Nikolaevich,  
1891-1954)

3(4)

AUTHOR:

Guseva, I. N.

SOV/6-58-11-13/15

TITLE:

General Geographic Maps of Foreign States for the University  
(Obshchegeograficheskiye karty inostrannykh gosudarstv dlya  
vyshey shkoly)

PERIODICAL:

Geodeziya i kartografiya, 1958, Nr 11, pp 59-74 (USSR)

ABSTRACT:

From 1951 to 1956 a series of general geographic maps, numbering 18, of all countries of Europe, of Asia and the USA have been published by the Glavnoye upravleniye geodezii i kartografii MVD SSSR (Main Administration of Surveying and Cartography at the Ministry of the Interior of the USSR) together with the Geographic Faculty of the MGU and a number of other institutions. The following scales were used: 1 : 600,000, partly 1 : 750,000, the Balkan-peninsula 1 : 1,000,000, China, Mongolia, and Korea 1 : 3,000,000, Central Asia 1 : 2,500,000. The last map exhibits an excellently high standard, containing information drawn from most recent research and exhibiting a particularly good relief representation. The maps were compiled on the basis of the world atlas (1954) and foreign documentations. This paper contains a detailed critical review of this map series. Suggestions are presented concerning the next edition.

Card 1/1

GUSEVA, I.N.

General maps of the geographical regions of the U.S.S.R. for the  
institutions of higher education. Vop.geog. no.42:150-157 '58.  
(MIRA 11:11)

(Russia--Maps, Physical)

GUSEVA, I.N.; KUL'BATSKAYA, I.Yu.

"Atlas of the Ukrainian S.S.R. and the Moldavian S.S.R."

Reviewed by I.N. Guseva, I.YU. Kul'batskaia. Izv. AN SSSR.

Ser.geog. no.1:141-144 Ja-F '63.

(MIRA 16:2)

(Ukraine--Maps)

(Moldavia--Maps)



GUSEVA, I.K.; M. L. D. V. , T. P.

Atlas of the Azerbaijan S.S.R. Geod. i kart. no. 57-63 S. 164.

(MIRA 17:12)

GUSEVA, I.N., otv. red.; MATSKEVICH, V.V., red.

[Atlas of the Virgin Territory] Atlas TSelinnogo kraia.  
Moskva, Glav. upr. geodezii i kartografii Gos.geol. kom.-  
ta SSSR, 1964. 49 p. (MIRA 18:4)

1. Moscow. Universitet. Geograficheskiy fakul'tet.

L 10699-65 EWT(1)/FCC AFETR GW

ACCESSION NR: AT4047190

8/2531/64/000/165/0040/0046

AUTHOR: Meleshko, V. P.; Guseva, I. P.

TITLE: Computation of some statistical characteristics for the temperature and humidity fields

SOURCE: Leningrad. Glavnaya geofizicheskaya observatoriya. Trudy\*, no. 165, 1964. Primeneniye statisticheskikh metodov v meteorologii (Use of statistical methods in meteorology), 40-46

TOPIC TAGS: meteorology, atmospheric temperature field, atmospheric humidity field, dew point

ABSTRACT: This article is a continuation of the author's earlier investigations of the statistical characteristics of dew point and temperature (see Tr. GGO, No. 114, 1960). The following structural function and autocorrelation functions were used as the principal quantitative characteristics of the statistical structure of the dew point  $\tau$  and temperature fields

$$b_f(r) = \overline{[f'(\bar{r}) - f'(\bar{r} + \delta\bar{r})]^2}$$

(1)

$$m_f(r) = \overline{f'(\bar{r}) f'(\bar{r} + \delta\bar{r})}$$

(2)

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ACCESSION NR: AT4047190

where  $f' = f - \bar{f}$ , and  $\bar{f}$  is the mean of the element  $f$ . Here it is assumed that  $b_f(r)$  and  $m_f(r)$  are homogeneous and isotropic, that is, are determined by only a single argument (distance). It has been demonstrated that the structural function of the geopotential is essentially dependent on season, and it is therefore natural to assume that the structural functions for dew point  $b_d(r)$  and temperature  $b_T(r)$  can also be different for different seasons. The author has already described a method for computation of the structural functions for dew point and temperature at the 850-mb level and given the results of computation of these functions (Tr. GGO, No. 143, 1963). Following the same method, the author has now computed the structural and autocorrelation functions for temperature at the surface and at the 850- and 700-mb level and dew point temperature at the surface and at the 700-mb level. The computations were made for three seasons. The computation of  $b(r)$  and  $m(r)$  at one surface for one season required about 25 hours machine time, using a "Ural-1" computer. The number of synoptic situations analyzed considerably exceeded the 50 used in the earlier studies. The values of  $b(r)$  and  $m(r)$  were computed to a distance of 4,000 km with the "Ural-1" and to 5,000 km on a high-speed computer used in certain of the computations. Figures 1-5 of the Enclosure show the normalized temperature and dew point autocorrelation functions at the earth's surface and at the 700- and 850-mb levels.

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ACCESSION NR: AT4047190

for three seasons. The character of the change in the structural and autocorrelation functions for temperature convincingly confirmed the linear change of these functions to definite distances. However, the structural (autocorrelation) functions for dew point are not linear functions for relatively short distances. Orig. art. has: 8 formulas, 5 figures and 4 tables.

ASSOCIATION: Glavnaya geofizicheskaya observatoriya, Leningrad (Main Geophysical Observatory)

SUBMITTED: 00

ENCL: 05

SUB CODE: ES

NO REF SOV: 005

OTHER: 000

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L 10699-65

ACCESSION NR: AT4047190

ENCLOSURE 01

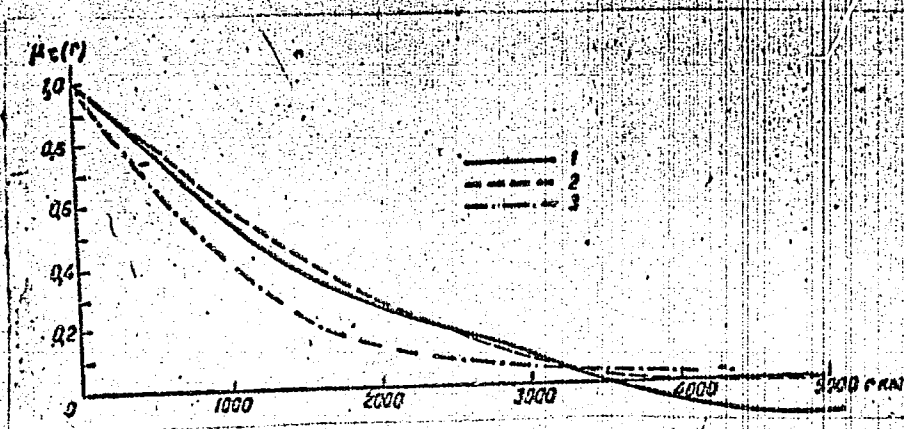


Fig. 1. Normalized autocorrelation functions for dew point temperature at the earth's surface for three seasons:  
1) spring; 2) autumn; 3) winter.

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ACCESSION NR: AT4047100

ENCLOSURE: 03

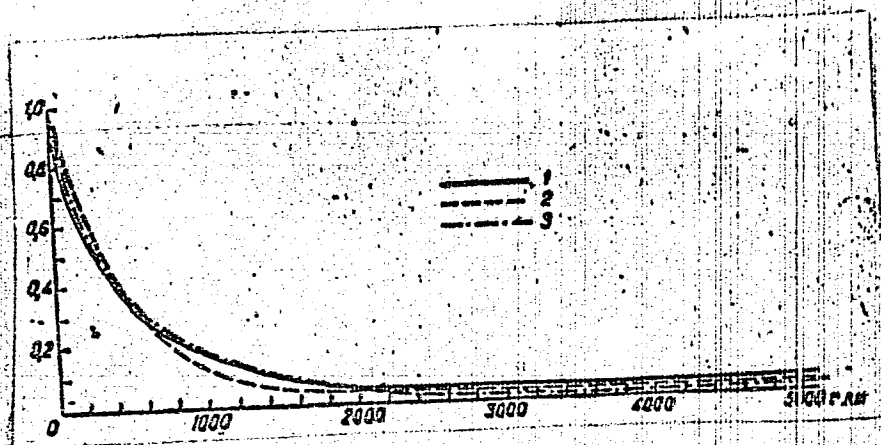


Fig. 2. Normalized autocorrelation functions for dew point temperature at the 700-mb level for three seasons.  
1) spring; 2) autumn; 3) winter

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ACCESSION NR: AT4047190

ENCLOSURE: 03

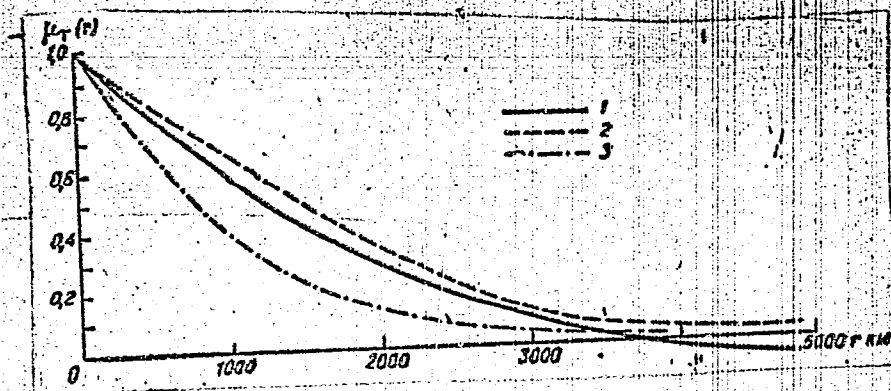


Fig. 3. Normalized autocorrelation functions for temperature at the earth's surface for three seasons: 1) spring; 2) autumn; 3) winter

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L 10699-65

ACCESSION NR: AT4047190

ENCLOSURE: 04

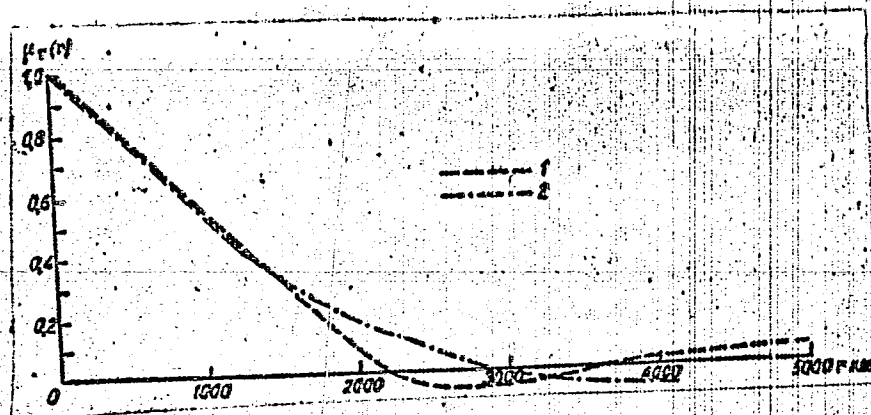


Fig. 4. Normalized autocorrelation functions for temperature at the 800-mb level for two seasons: 1) autumn; 2) winter.

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L 10699-65

ACCESSION NR: AT4047190

ENCLOSURE: 406

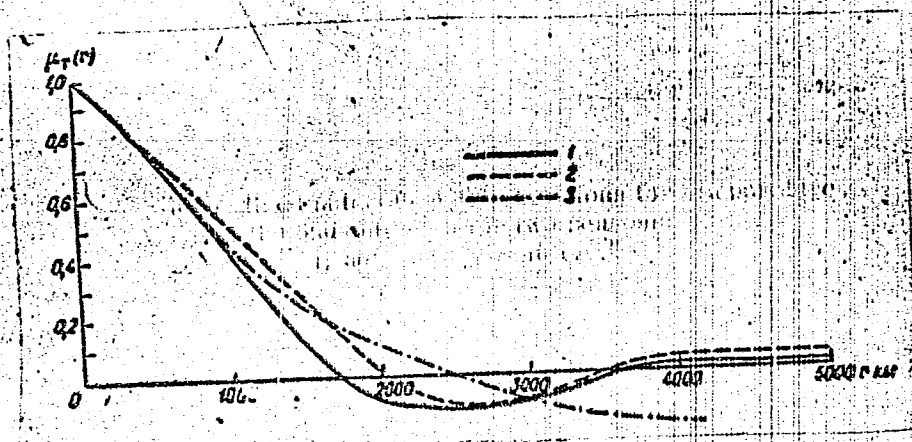


Fig. 5. Normalized autocorrelation functions for temperature at the 700-mb level for three seasons.  
1) spring; 2) autumn; 3) winter

Card 8/8

GUSEVA, I.S., kand. med. nauk (Kiyev)

Work of geriatric rooms. Sovet. zdravookhr. 5:26-29 '63  
(MIRA 17:2)

1. Iz organizatsionno-metodicheskogo otdela (zav. - prof. Yu.A. Dobrovol'skiy) Instituta gerontologii i eksperimental'noy patologii (dir. - chlen-korrespondent AMN SSSR prof. D.F.Chebotarev) AMN SSSR.

GUSEVA, I. S.

GUSEVA, I. S. -- "A Study of the Disease Rate Based on Return Data (On Material from Polyclinic No 22 of the City of Moscow)." Min Health USSR. Central Inst for the Advanced Training of Physicians. Moscow, 1955. (Dissertation for the Degree of Candidate of Medical Sciences.)

SO: Knizhnaya letopis', No. 4, Moscow, 1956